

## **APPENDIX B – INTERDISCIPLINARY TEAM CHECKLIST**

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## INTERDISCIPLINARY TEAM CHECKLIST

**Project Title:** Hatch Point Potash Exploration Project

**NEPA Log Number:** DOI-BLM-UT-Y010-2012-127-EA

**File/Serial Number:** UTU-086575

**Project Leader:** Rebecca Doolittle

**DETERMINATION OF STAFF:** *(Choose one of the following abbreviated options for the left column)*

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

The following elements are not present in the Moab Field Office and have been removed from the checklist:  
Farmlands (Prime or Unique), Wild Horses and Burros.

Determination	Resource	Rationale for Determination*	Signature	Date
<b>RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)</b>				
PI	Air Quality	The construction and drilling of a potassium exploratory drill hole results in various emissions that affect air quality. K2O would need to provide an emissions inventory for the project. The State of Utah Division of Air Quality has established threshold levels that would require permitting and dispersion modeling. Impacts to air quality will be analyzed in detail in the EA.	Ann Marie Aubry	8/10/2012
NI	Greenhouse Gas Emissions	Greenhouse gas emissions are too small to merit quantification. Greenhouse gas emissions will not be carried forward in detail in the EA.	Ann Marie Aubry	8/10/2012
NI	Floodplains	Floodplains would not be impacted by the proposed action as drill locations and access roads do not cross these areas. Improvements on designated routed do not cross floodplain areas.	Ann Marie Aubry	8/10/2012
PI	Soils	New access road and well pad construction activities will disturb between 29.7 to 38.7 acres of undisturbed and previously disturbed ground. Biological soil crusts occur at Federal #4 core hole. Recommend adding to conditions of approval the requirement to salvage the top three inches of soil and stockpile in a pile separate from the remaining topsoil location. This should help keep the biologic soil crusts viable. Soil disturbance will result from access road and well pad construction. Impacts to soils will be analyzed in detail in the EA.	Ann Marie Aubry	8/10/2012

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NI	Water Resources/Quality (drinking/surface/ground)	<p><u>Drinking Water</u> The proposed action will not affect drinking water supplies.</p> <p><u>Surface Water</u> Access road and core hole pad construction (30 acres) will destroy vegetation, displace and mix soils exposing them to increased erosion from wind and water, and increase sedimentation in runoff water until reclamation is accomplished. The proposed project incorporates standard operating procedures, and mitigation measures that reduce the impacts to the soil, vegetation, and watershed resources from construction operations. These measures include minimizing surface disturbance and an interim and final reclamation plan that includes reseeding with native species. The area of impact is nominal for the landscape and the overall quality of the watershed will not be affected.</p> <p><u>Usable Ground Water</u> Standard operating procedures (SOPs) required by regulation and site specific mitigation will be sufficient to isolate and protect all usable ground water aquifers. The drilling plan requirements in the drilling plan are that surface casing would be set and cemented from the surface to the bottom of the Navajo Formation effectively isolating all useable aquifers. The casing would be pressure tested to ensure integrity prior to drilling out the surface casing shoe plug.</p> <p>Details regarding water rights and anticipated use for dust suppression, drilling, and reclamation are provided in <b>Section 2.2.4</b>. The proposed water for all facets of the project is 2.0 acre-feet.</p> <p>The proposed action would not intersect any Sole Source Aquifer or Drinking Water Source Protection Zone.</p> <p>Water Resources/Quality is not impacted to the degree that would require detailed analysis in the EA.</p>	Ann Marie Aubry	8/10/2012
NP	Wetlands/Riparian Zones	Wetlands and riparian areas are not present in the areas proposed for well pad locations and access routes. Therefore these resources are not evaluated in detail in the EA. will not be affected by the proposed action. Refer to the Moab 2008 Resource Management Plan.	Ann Marie Aubry	8/10/2012
NP	Areas of Critical Environmental Concern	Not present in the project area (Map 21, 2008 Moab RMP)	Katie Stevens	8/10/2012

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PI	Recreation	<p>The project area is located within the Canyon Rims Special Recreation Management Area (SRMA). The management goals for the Canyon Rims SRMA described in Appendix M of the RMP, are to provide for a variety of visitor benefits, 1) Provide scenic driving opportunities on the Scenic Byway and on the backcountry road system; 2) provide facilities at the scenic overlooks to enhance visitor experience; 3) provide quality camping experiences in two developed campgrounds; 4) provide hiking and backpacking opportunities, especially in Hatch Wash.</p> <p>Recreation use at Canyon Rims includes hiking, backpacking, OHV driving, camping and general travel to the area to visit to enjoy the viewpoints at the Needles and Anticline Overlooks. The proposed action would temporarily displace recreational users to the area and affect their general experience. Recreation is carried forward for analysis in the EA.</p>	Katie Stevens	8/10/2012
NP	Wild and Scenic Rivers	Not present in the project area (Map 22, 2008 Moab RMP)	Katie Stevens	8/10/2012
PI	Visual Resources	<p>The drilling locations for the Federal #1, #2 and #4 are located in Visual Resource Management (VRM) Class II where the objective is. The objective of VRM II is The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. Drilling locations for the Federal #3 and #5 core holes are in VRM Class III where the . The objective for VRM Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.-Visual quality is carried forward for analysis in the EA.</p>	Katie Stevens	8/10/2012
NP	BLM Natural Areas	Not present in the project area (Map 16, 2008 Moab RMP)	Bill Stevens	8/10/2012
NI	Socio-Economics	IMPLAN 3.0 estimates that one well at a cost of \$3.5 million would generate 5 direct jobs and 3 indirect and induced jobs within the planning areas. These jobs would be temporary, presumably lasting the length of time the drilling would require. Assuming the wells are drilled sequentially (as opposed to simultaneously), the same jobs would then be associated with the next well, and so on. Although	Bill Stevens	8/10/2012

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		<p>important to the affected individuals, the impact to total employment within the planning area (San Juan County) is very minor.</p> <p>Longer term benefits (especially fiscal benefits to local government) could accrue in a production phase, should that develop. The production phase, however, is beyond the scope of the current project. Socioeconomics is not carried forward for full evaluation in the EA.</p>		
NP	Wilderness/WSA	Not present in the project area. The proposed project is not located in a wilderness study area (Map 23, 2008 Moab RMP).	Bill Stevens	8/10/2012
NP	Lands with Wilderness Characteristics	Not present in the project area (Map 15, 2008 Moab RMP). The area in question has been evaluated for wilderness characteristics by BLM on several occasions. The 1999 Utah Wilderness inventory and the 2003 Wilderness inventory Revision both concluded that the area in which the proposed core holes are located lacked naturalness due to the large number of constructed routes in the area. In 2007, the Moab BLM undertook a Wilderness Characteristics Review as part of its 2008 RMP. In that review, Moab BLM concluded that its original determination that the area in question lacked wilderness characteristics remained valid.	Bill Stevens	8/10/2012
NI	Cultural Resources	A cultural survey was completed and the report filed in the BLM Moab F.O. The report indicated that the proposed action would not affect any cultural sites. Based on a cultural survey conducted for the project, the BLM authorized officer has made a determination of “no adverse effect” to cultural properties. SHPO consultation was conducted in a letter mailed to the SHPO on June 27, 2012. The SHPO concurred with the Field Office’s determination in a letter from the SHPO dated May 16, 2012. Cultural Resources will not be analyzed in detail.	Don Montoya	8/10/2012
NI	Native American Religious Concerns	<p>On June 29, 2012 consultation letters were sent to 14 Native American Tribes. Included with the letters was the report for the class III cultural survey that was conducted for the project. The cultural resource Class III survey conducted for the project determined that the project would not affect any properties eligible for inclusion on the “National Register for Historic Properties”. The BLM, after review of the report, determined that there would be “no historic properties affected”. On July 2, 2012 The BLM received a response from the Hopi Tribe. In their response the Hopi Tribe concurred with the BLM’s determination of “no historic properties affected”.</p> <p>Native American Religious Concerns will not be</p>	Don Montoya	8/10/2012

Determination	Resource	Rationale for Determination*	Signature	Date
		analyzed in detail in the EA.		
NI	Environmental Justice	The Moab Field Office RMP Final EIS determined that no disproportionate adverse impacts to minority or low income populations would occur. This resource is not carried forward for evaluation in the EA.	Bill Stevens	8/10/2012
NI	Wastes (hazardous or solid)	Drilling fluids, produced water, and other wastes associated with the exploration for potassium resources are excluded as a hazardous waste under 40 CFR 261.4(b)(4). The surface use plan contained in the Exploration Plan includes sufficient mitigation to ensure proper containment and disposal of wastes generated from the proposed drilling activity. This resource is not carried forward for evaluation in the EA.	Rebecca Doolittle	8/10/2012
NI	Threatened, Endangered or Candidate Animal Species	Several locations within the project are located in areas that are modeled as foraging habitat according to the Willey-Spotskey MSO Model (1997) for Mexican Spotted Owls (MSO) but no suitable or modeled breeding habitats are in or adjacent to the project area. Foraging habitats within or adjacent to the project area do not contain the constituent elements needed to support MSO occupancy and nesting, therefore impacts of this project on MSO nesting habitats will not be analyzed in this document. No other Listed species or their habitats area known to the proposed project area.	Pam Riddle	8/10/2012
PI	Migratory Birds	The project area is habitat for migratory birds and raptors. The proposed action would be subject to Moab RMP management decisions WL-18 (p. 138) which specifies that raptors will be managed under the Best Management Practices for Raptors and their Habitats in Utah. To comply with Raptor BMPs the following Condition of Approval will be attached:  A nesting season raptor survey and United States Fish and Wildlife Service (USFWS) protocol Mexican Spotted Owl survey will be required prior to any surface disturbing construction, drilling, and reclamation activities. The surveys shall be conducted by qualified individuals according to protocol, and a report submitted to the BLM Moab Field Office. Persons conducting the surveys shall contact the Moab BLM Field Office in advance for survey requirements. Depending on the results of the survey, the authorized officer shall determine appropriate timing limitations and/or spatial buffers, and conduct appropriate consultation with the USFWS (AEPM #63).  Impacts to migratory birds are analyzed in detail in the EA	Pam Riddle	8/10/2012

<b>Determination</b>	<b>Resource</b>	<b>Rationale for Determination*</b>	<b>Signature</b>	<b>Date</b>
NI	Utah BLM Sensitive Species	The areas of proposed disturbance were surveyed for Kit Fox. No den sites were identified. There will be temporary displacement of some wildlife during construction, drilling, and production operations, the SOPs, BMPs, site specific surveys, and reclamation to re-establish habitat will mitigate impacts to wildlife. The project is located within Pronghorn Fawning grounds. Avoid surface disturbing activities between May 1 and June 15. Fish and wildlife resources are analyzed in detail in the EA.	Pam Riddle	8/10/2012
NI	Fish and Wildlife Excluding USFWS Designated Species	Although there will be temporary displacement of some wildlife during construction, drilling, and production operations, the SOPs, BMPs, site specific surveys, and reclamation to re-establish habitat will mitigate impacts to wildlife. The project is located within Pronghorn Fawning grounds. Avoid surface disturbing activities between May 1 and June 15. Fish and wildlife resources are not analyzed in detail in the EA.	Pam Riddle	8/10/2012
NI	Invasive Species/Noxious Weeds	The use of standard protocols will minimize opportunities for noxious weed establishment. This resource is not evaluated in detail in the EA.	Jordan Davis	8/10/2012
NP	Threatened, Endangered (T&E) or Candidate Plant Species	Based on current inventories, the project area is not suitable habitat for any threatened, endangered, candidate, or otherwise sensitive plant species. T&E plants are not analyzed in detail in the EA.	Dave Williams	8/10/2012
NI	Livestock Grazing	The project occurs within the Hatch Point grazing allotment. If drilling occurs while livestock are in the area the livestock could be temporarily displaced along the access roads and the drill pads. The proposed project area is a small part of the allotments and occurs within areas of limited grazing suitability. However, the proposed project would not affect the overall grazing management in the allotments, and the use of fencing at the well pad sites would prevent livestock entry. The pit fencing and netting would prevent livestock entry. Impacts to livestock are expected to be negligible. Livestock grazing is not analyzed in detail in the EA.	Kim Allison	8/10/2012
NI	Rangeland Health Standards	The proposed project incorporates standard terms and conditions, and mitigation measures that reduce the impacts from construction and drillings. These measures include erosion control, minimizing surface disturbance and final reclamation plans that include reseeding with native species. This mitigation is consistent with Rangeland Health Standards and Guidelines. Rangeland Health Standards will not be analyzed in detail in the EA.	Kim Allison	8/10/2012
PI	Vegetation Excluding USFWS Designated Species	Most of the area affected by the proposed action and all of the area subject to new road and core hole pad construction activity is within the Begay, Ingacio-Lenato and Windwhistle soil series. The soils tend to	Kim Allison	8/10/2012

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		<p>be well drained. The dominant vegetation at core hole locations Federal #1, #2, #3 and #5 is sagebrush, blue grama, galleta, Indian ricegrass and needle and thread. The predominant vegetation at the Federal #4 is Pinon-Juniper. New access road and well pad construction activities will impact existing vegetation. Vegetation resources will be analyzed in detail in the EA.</p>		
NI	Woodland / Forestry	<p>The project will cause the clearing and destruction of a limited area (4.5 acres) of pinion pine and Utah juniper trees at the Federal #4 drill hole location. The area of impact is nominal compared to the landscape and the overall pinyon and juniper woodland will not be affected. Woodland and forestry are not analyzed in detail in the EA.</p>	Jordan Davis	8/10/2012
NI	Fuels/Fire Management	<p>Fuels accumulated during the construction and improvement of roads in the area will be left onsite. Accumulated fuels will be used within 90 days for rehabilitation of new road construction. Road improvements will allow better access for fire suppression personnel. Since fuels will be left onsite and reused no further analysis is needed. Woodland and forestry is not analyzed in detail in the EA.</p>	Joshua Relph	8/10/2012
NI	Geology / Mineral Resources/Energy Production	<p>The project area is located within the Paradox Fold and Fault Belt with a high potential for potash. In the Hatch Point area, drilling is necessary to identify the potash resource as past drilling in the area is limited. The project area is open for mineral exploration.</p> <p>Oil and gas resources are also known to occur in the Hatch Point area (also within the Paradox Fold and Fault Belt). Three drilling locations are located on active leases. The location for the Federal #1 is located on lease number UTU-086244, the Federal #3 is located on lease number UTU-076349 and the Federal #5 is located on lease number UTU-076580. During drilling of each core hole all prospective valuable minerals encountered during drilling would be recorded by depth and protected.</p> <p>Add condition of approval (COA) to have operator contact the BLM 48 hours before any surface disturbing activities occur so that a BLM representative can be present during construction of the access routes and drill pad, and to inspect the excavated pits for groundwater seepage.</p> <p>Mineral Resources/Energy Production are present in the area but would not be impacted and therefore not carried forward in the analysis.</p>	Rebecca Doolittle	8/10/2012
NI	Lands/Access	<p>Rights- of-way would be required for a 2.6 mile segment of the Needles Overlook road from its</p>	Jan Denney	8/10/2012

Determination	Resource	Rationale for Determination*	Signature	Date
		<p>junction with the Anticline Overlook Road to the Horse Head Rock road (CR 169). Other ROWs would be required for the Horse Head Rock Road, the Anticline Overlook Road and the access to Hatch Point Federal #3. It should be noted in the EA that All new road construction will not become part of the Moab Field Office travel management plan and would be signed with "No Public Access" signs during construction drilling and reclamation. Access roads would be reclaimed and "restoration area" signs would be posted. Lands and access are not analyzed in detail in the EA.</p>		
NI	Paleontology	<p>Paleontological resource surveys have been conducted. No resources were identified, however, due to the high potential fossil yield classification of the geologic formations at the Federal #1 that if the bedrock is disturbed during construction the site should be spot checked by a certified paleontologist. This resource is not carried forward for evaluation in the EA. The following statement should be added to the conditions of approval: "If paleontological resources are encountered during ground disturbing activities, notify the Moab Field Office immediately and cease all activity until the resource can be evaluated."</p>	Rebecca Doolittle	8/10/2012

**FINAL REVIEW:**

Reviewer Title	Signature	Date	Comments
Environmental Coordinator			
Authorized Officer			